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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/594,862	09/29/2006	Cheng Tao	PA040012	8151

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EXAMINER
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DAZENSKI, MARC A

ART UNIT	PAPER NUMBER
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2621

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/594,862	TAO ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	MARC DAZENSKI	2621	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 September 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☒ Claim(s) 1, 4-6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9-29-2006</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Drawings***

New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because figures 4-5 contain unerased errors and stray marks. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

### ***Claim Objections***

**Claim 1** is objected to because of the following informalities: line 2 of the claim refers to an "MPEG like standard," however it is not clear as to how the standard is "MPEG like" nor to what degree. Further, lines 9-10 of the claim read, "the intrainter-coded picture as menu information;" the examiner interprets this to mean "the intra-coded picture as menu information." Appropriate correction is required.

**Claim 4** is objected to because of the following informalities: line 4 of the claim refers to "the previous inter-coded picture." However, there is insufficient antecedent basis for this in the claims, and the examiner therefore interprets this to mean "a previous inter-coded picture." Appropriate correction is required.

**Claim 5** is objected to because of the following informalities: lines 2-3 of the claim refers to "the picture information representative for a new recording." However, there is insufficient antecedent basis for this in the claims, and it is unclear if the applicant is referring to the "picture information representative for a recording," "information related to another recording," "picture information representative for the respective recording," or some other unknown set of picture information. Appropriate correction is required.

**Claim 6** is objected to for reasoning similar to that of claim 1 above. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in

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memory held statutory product-by-process claim) with Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

**Claim 9** is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claim 9 defines a recording medium embodying functional descriptive material. However, the claim does not define a computer-readable medium or computer-readable memory and is thus non-statutory for that reason (i.e., "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" – Guidelines Annex IV). The scope of the presently claimed invention encompasses products that are not necessarily computer readable, and thus NOT able to impart any functionality of the recited program.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1, 4, and 9** are rejected under 35 U.S.C. 102(b) as being anticipated by Schumann et al (US Patent 6,078,328), hereinafter referred to as Schumann.

Regarding **claim 1**, Schumann discloses a compressed video graphics system and methodology. Further, Schumann discloses utilizing MPEG-2 graphics data as well as an audio/video stream from a DVD to generate a menu, which reads on the claimed, "method for generating a menu for a video recording medium, the menu being coded according to an MPEG like standard," as disclosed at column 3, lines 58-67 and exhibited in figures 1 and 2; the method comprising:

implementing an MPEG-2 I-frame as a base image to which is added one or more temporary MPEG-2 P-frames containing one or more graphical elements, the foreground images being used to encode a complete MPEG-2 P-frame, and the frames are combined to form a menu and menu items, which reads on the claimed, "starting with a predefined intra-coded picture consisting of blocks, generating an inter-coded picture having no change information for predefined blocks, and having change information for selected blocks containing picture information representative for a recording on the video recording medium, and using both, the inter-coded picture and the intrainter-coded picture as menu information," as disclosed at column 3, lines 16-25; column 4, lines 25-28; column 7, lines 4-7; and exhibited in figure 3.

Regarding **claim 4**, Schumann discloses everything claimed as applied above (see claim 1). Further, Schumann discloses there may be multiple graphic elements to be combined with each background image, which reads on the claimed, "wherein an

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inter-coded picture is added to the previous inter-coded picture," as disclosed at column 8, lines 4-9 and exhibited in figure 3.

Regarding **claim 9**, the limitations of the claim are rejected in view of the explanation set forth in claim 1 above.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Claims 6-8** are rejected under 35 U.S.C. 102(e) as being anticipated by Frimout et al (US Patent 7,046,260), hereinafter referred to as Frimout.

Regarding **claim 6**, Frimout discloses menu generating method and recording device for a record carrier. Further, Frimout discloses a menu picture generating method and a recording for recording a menu picture on a record carrier, the menu composed of a background still-picture and overlay according to the MPEG standard, which reads on the claimed, "device for generating a menu for a video recording medium, the menu being coded according to an MPEG like standard," as disclosed in the abstract and at column 1, lines 28-31;

RAM (15) for storing recording and/or reproducing data and background and key frame picture data, which reads on the claimed, "the device having a predefined intra-

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coded picture memory, a representative picture memory," as disclosed at column 3, lines 19-31;

Assembling unit (12) for assembling a background picture read from the RAM (15) and a scaled encoded key frame picture applied from an MPEG encoder (13), which reads on the claimed, "an encoder for generating an inter-coded picture using an output of the intra-coded picture memory as basis and an output of the representative picture memory as changes to be recorded," as disclosed at column 3, lines 60-67; and,

disc drive unit (11) for recording onto a recordable optical disc (20), which reads on the claimed, "a recording unit," as disclosed at column 3, lines 21-22.

Regarding **claim 7**, Frimout discloses everything claimed as applied above (see claim 7). Further, the limitations of the claim are rejected in view of the explanation set forth in claim 6 above.

Regarding **claim 8**, Frimout discloses everything claimed as applied above (see claim 7). Further, Frimout discloses assembling a background picture and a keyframe, as well as scaling unit (16) which reads a selected key frame and performs a scaling operation, which reads on the claimed, "where for generating the picture information representative for new recording a picture from an encoder display buffer is duplicated into an extra memory area during the new recording, and the picture in the extra memory area is subsampled after the new recording has been terminated," as disclosed at column 3, line 60 through column 4, line 19.



***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 2-3, and 5** are rejected under 35 U.S.C. 103(a) as being unpatentable over Schumann et al (US Patent 6,078,328), hereinafter referred to as Schumann, in view of Frimout et al (US Patent 7,046,260), hereinafter referred to as Frimout.

Regarding **claim 2**, Schumann discloses everything claimed as applied above (see claim 1). However, Schumann fails to disclose the remaining limitations of the claim. The examiner maintains it was well known to include these limitations, as taught by Frimout.

In a similar field of endeavor, Frimout discloses a menu generating method and recording device for a record carrier. Further, Frimout discloses presenting a menu with specific key frames, each one representing a track or recording, and the assembling step is performed by replacing entire portions of the background picture by new portions which represent the scaled at least one key frame picture, which reads on the claimed, "wherein picture information representative for more than one recording is used for generating the inter-coded picture," as disclosed at column 1, lines 33-40; column 2, lines 15-34; and exhibited in figures 3 and 4.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the compressed video graphics system and methodology of Schumann to include presenting a menu with specific key frames, each on representing a track or recording, and the assembling step is performed by replacing entire portions of the background picture by new portions which represent the scaled at least one key frame picture, as taught by Frimout, for the purpose of assembling a menu in the compressed picture domain so as to use a very limited amount of memory.

Regarding **claim 3**, Schumann discloses everything claimed as applied above (see claim 1). However, Schumann fails to disclose the remaining limitations of the claim. The examiner maintains it was well known to include these limitations, as taught by Frimout.

Frimout discloses each time a new recording is added to the disc, an entirely new background picture needs to be assembled, which can be done by adding the new key frame to the old background picture, which reads on the claimed, "wherein the menu is updated with information related to another recording on the video recording medium by generating an inter-coded picture having changes only for selected blocks containing picture information representative for the respective recording," as disclosed at column 1, lines 36-40.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the compressed video graphics system and methodology of Schumann to include each time a new recording is added to the disc, an entirely new background picture needs to be assembled, which can be done by

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adding the new key frame to the old background picture, as taught by Frimout, assembling a menu in the compressed picture domain so as to use a very limited amount of memory.

Regarding **claim 5**, Schumann discloses everything claimed as applied above (see claim 1). However, Schumann fails to disclose the remaining limitations of the claim. The examiner maintains it was well known to include these limitations, as taught by Frimout.

Frimout discloses assembling a background picture and a keyframe, as well as scaling unit (16) which reads a selected key frame and performs a scaling operation, which reads on the claimed, "where for generating the picture information representative for new recording a picture from an encoder display buffer is duplicated into an extra memory area during the new recording, and the picture in the extra memory area is subsampled after the new recording has been terminated," as disclosed at column 3, line 60 through column 4, line 19.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the compressed video graphics system and methodology of Schumann to include assembling a background picture and a keyframe, as well as scaling unit (16) which reads a selected key frame and performs a scaling operation, as taught by Frimout, for the purpose of assembling a menu in the compressed picture domain so as to use a very limited amount of memory.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARC DAZENSKI whose telephone number is (571)270-5577. The examiner can normally be reached on M-F, 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on (571)272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Marsha D. Banks-Harold/  
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